

**CHAPTER 21**  
**Fire Prevention**  
**(Rep. & recr. #48-83) (Am. #10-99)**

**21.09 Non-Water Based Fire Extinguishing Systems**

(1) GENERAL. Automatic fire extinguishing systems, other than automatic sprinkler systems, shall be designed and installed in accordance with the provisions of this section.

(2) ELECTRICAL WIRING. (Am. #4-17) Electrical wiring shall be in accordance with Wis. Admin. Code SPS §316.

(3) ACTUATION. Fire extinguishing systems shall be automatically actuated and provided with a manual means of actuation.

(4) SYSTEM INTERLOCKING. Automatic equipment interlocks with fuel shutoffs, ventilation controls, door closers, window shutters, conveyor openings, smoke and heat vents, and other features necessary for proper operation of the fire extinguishing system shall be provided as required by the design and installation standard utilized for the hazard.

(5) ALARMS AND WARNING SIGNS. Where alarms are required to indicate the operation of automatic fire extinguishing systems, distinctive audible, visible alarms, and warning signs shall be provided to warn of pending agent discharge. Where exposure to automatic extinguishing agents pose a hazard to persons and a delay is required to ensure the evacuation of occupants before agent discharge, a separate warning signal shall be provided to warn occupants once agent discharge has begun.

(6) MONITORING. (Am. #18-08) Where a building fire alarm system is installed, automatic fire extinguishing systems shall be monitored by the building fire alarm system in accordance with NFPA 72. Activation of the protected premises fire alarm system shall occur within ninety (90) seconds of system operation. Retransmission of alarms, supervisory alarms, and trouble signals to a supervising station shall be accomplished within ninety (90) seconds of occurrence.

(7) INSPECTION AND TESTING. (Am. #18-08) Automatic fire extinguishing systems shall be inspected, tested and maintained in accordance with the requirements of NFPA standards, State Building and Fire Prevention Codes, including IFC Section 904, Alternative Automatic Fire-Extinguishing Systems.

(8) INSPECTION. Prior to conducting final acceptance tests, the following items shall be inspected:

- (a) Hazard specification for consistency with design hazard;
- (b) Type, location, and spacing of automatic and manual initiating devices;

**CHAPTER 21**  
**Fire Prevention**  
**(Rep. & recr. #48-83) (Am. #10-99)**

**21.09 Non-Water Based Fire Extinguishing Systems**

- (c) Size, placement, and position of nozzles or discharge orifices;
- (d) Location and identification of audible and visible alarm devices;
- (e) Identification of devices with proper designations;
- (f) Operating instructions;
- (g) Operation of fuel shutoff.

(9) ALARM TESTING. Notification appliances, connections to fire alarm system, and connections to approved supervising stations shall be tested to verify proper operation.

(10) PORTABLE FIRE EXTINGUISHERS. (Ren. 18-08) Portable fire extinguishers provided for the protection of commercial-type cooking equipment shall be of an approved type and shall contain an extinguishing agent which is compatible with the automatic fire suppression system agent. Sizing and distribution shall be in accordance with the appropriate provisions of NFPA 10.

(11) APPROVAL OF PLANS AND SYSTEM. (Ren. 18-08)

(a) Prior to the installation of a fire alarm system, three (3) copies of the plans and specifications shall be submitted to the Fire Prevention Bureau for review. Plans should include the following information:

1. For pre-engineered systems, a letter should be submitted describing the make, model, and size of the extinguishing system. The letter should also include a description of where the system is to be installed, the type of fuel shutoff device that will be utilized, and the hazard that is protected. Cut sheets for the device shall also be submitted.
2. For engineered systems, a drawing shall be submitted that shows the location of all devices, piping, manual operation devices, and copies of cut sheets for equipment used in the system shall be submitted. Information on the hazard that is protected shall also be submitted. All equipment must be listed for its intended purpose.

(b) All fire protection equipment must be listed for its intended purpose.

**CHAPTER 21**  
**Fire Prevention**  
**(Rep. & recr. #48-83) (Am. #10-99)**

**21.09 Non-Water Based Fire Extinguishing Systems**

1. Approved plans shall be stamped "Conditionally Approved" by the Fire Prevention bureau, including the date of such approval, and the signature of the officer granting the approval. Plan approval is conditioned upon completion in accordance with all applicable codes. Two (2) copies shall be returned to the contractor, one (1) copy for the owner, and one (1) copy to be retained at the job site while work is in progress. One (1) copy will be kept on file in the Fire Prevention Bureau office. The Fire Department may request additional information based on the complexity of the system or uniqueness of a building. Conditional approval of the fire alarm system plans by the Fire Prevention Bureau is not intended to confirm the accuracy of any calculations or system design performed by the contractor. The contractor is responsible for the accuracy of any calculations of the system design.

2. No work may begin on the installation of the fire alarm system or alteration of a fire alarm system, unless it is approved by the fire Prevention Bureau. If work is begun before the plans receive conditional approval, all work must stop immediately. No fire alarm system shall receive final approval prior to an acceptance test being performed before the Fire Chief or his/her designee. The building may not be occupied before the test is completed and approved. All acceptance tests will be scheduled by the Fire Prevention Bureau. no acceptance tests will be conducted unless the Fire Prevention Bureau receives at least a 48 hour advance notice.

(c) Fees. (Am. #59-01) (Am. #35-04) (Am. #18-08)

1. Plan review fee - \$55.00
2. Site inspection and final inspection - \$95.00
3. Approval of small additions to existing systems and inspection fee - \$50.00